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EXAMINER

HOFFMANN, JOHN M.

ART UNIT

PAPER NUMBER

1731

DATE MAILED 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,767

Applicant(s)

BIRD ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB-008)
 Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no mention of any amounts that increase linearly along the longitudinal axis as per claim 12. Examiner could find no discussion of the invention of claim 12 when he looked in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

AS indicated above, Examiner could find no mention of the claim 12 invention. There are various ways to interpret this limitation. Claims are to be interpreted in light of the specification. When the specification does not even mention a limitation, one of ordinary skill would not be able to reasonably ascertain what is meant by the claims because one cannot use the specification for the "light".

Claim 18: the last line does not seem to make sense.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, and 12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hara 4552576.

Figure 4 of Hara shows the invention. The forming step is represented at the upper portion of the drawing. 22A and 22B grasp and rotate; they comprise the feed apparatus. 34 is the deposition chamber in which the depositing step is performed. If any of the above features are not explicitly taught, it would have been obvious to provide such, because that is what the drawing reasonably suggests.

Claim 2: 32 is the consolidation chamber in which the preform is consolidating. As to vitrifying the preform: the preform is made of glass which is already vitreous, thus it cannot be further vitrified. It has a step of vitrifying in as much as the present invention has vitrifying.

Claim 3: 32 also serves as a drying chamber.

Claim 4: The drawing shows the preform to have constant diameter. Since the processing is essentially steady state, it would have been obvious to expect a steady state product (i.e. a product with constant diameter).

Claim 5: page 10, lines 4-5 indicate that a gas can be used for "this purpose". It is not clear as to what purpose it refers to. It is reasonable to interpret such to be the purpose of cleaning. One of ordinary skill would understand that blowing effects cleaning. It is deemed that blowing at feature 19 effects cleaning of the rod.

Claim 6: the specification does not identify any "action". It is deemed that rotation is an action. Rotation is an action. One can wipe by rotation, thus it is deemed that rotation is a "wiping action". The rotation that feature 6 imparts is deemed to be a wiping action.

Claims 7-8 : it would have been obvious to supply as many burners as desired – depending upon how much soot one wishes to deposit. Note, Hara teaches using an additional optional burner (8') that is longitudinally spaced from another (8).

Claim 12: The amounts would increase as thus. For example the first amount could be the amount that was deposited in the first 10 minutes period. A second amount would be the amount deposited in a second 10 minute period. If the first inch of the first amount was 100 gram, the second inch would make the amount 200 grams, the third inch would increase the total of the first amount to 300 grams – this is a linear increase as one goes along the axis.

Claim 23, 1 and 7-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shimada 5958102.

Claim 23: It is deemed that a traversing supply of cane is not structure, it is a method step. Therefore all that is required by the claim is the deposition stage. Figure 1 of Shimada clearly discloses all the claimed features of the deposition stage.

Alternatively: cane 18 is a continuous cane. It is deemed to be a supply. It is traversing the gap between the dummy rods – or it is traversing the space between 21 and 20. It does the traversing in a longitudinal manner.

Claims 1,7-8: if Shimada doesn't inherently disclose the forming of supply rod 18, it would have been obvious to form it because it is needed for the method. The rod is clearly a continuous rod. IT is grasped by 20 and 21. It is clearly rotated. The deposition of soot is evident. Alternatively, it would have been obvious to continuously supply additional rods to the apparatus so as to make more preforms.

Claim Rejections - 35 USC § 103

Claims 1, 9, 13, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeNoane 4407667 in view of Keck 3737292 and optionally in view of Hara 4551576.

LeNoane discloses the invention as claimed (see figure 4), except for the chamber and the imparting of rotation. Col. 4, lines 28-31 of LeNoane teaches the use of the Keck method for depositing. Keck (col. 3, lines 53-63) disclose rotation to provide uniform deposition. IT would have been obvious to rotate the LeNoane rods/preforms

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so as to provide uniform deposition. Hara is cited (optionally) as showing one of ordinary skill would have been able to rotate the preform.

As to the chamber, it would have been obvious to provide a chamber housing around all of the LeNoane structure so as to protect the preform from outside contaminants and/or cooling/wind. Further so as to protect humans from accidentally falling into the very hot flames.

Alternatively including Hara: Hara shows it is known to separate various portions by using chambers. It would have been obvious to have a similar arrangement with LeNoane, so as to better isolate/control the optimal conditions for each particular process step.

Claim 13-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeNoane alone or in view of Hara 4551576.

LeNoane discloses the invention as claimed (see figure 4), except for the chamber. It would have been obvious to provide a chamber housing around all of the LeNoane structure so as to protect the preform from outside contaminants and/or cooling/wind. Further so as to protect humans from accidentally falling into the very hot flames.

Alternatively including Hara: Hara shows it is known to separate various portions by using chambers. It would have been obvious to have a similar arrangement with LeNoane, so as to better isolate/control the optimal conditions for each particular process step.

Claim 14 is deemed to be a drying chamber. Feature 14 is for heat treating, heat can be used to dry. Drying is a step, not structure. The claim is directed to structure, not to steps. As indicated above, it would have been obvious to included chambers to isolate each step. Alternatively: 14 is a chamber in as much as Applicant's structure has a chamber. It is clear that a "chamber" need not be completely closed on the top and bottom.

Claim 15 – feature 14 of LeNoane consolidates the glass. As to it being a chamber: see how claim 14 is treated above.

Claim 16: it is noted that the claim does not require any relationship between the cleaner and the rest of the structure. Thus the cleaner could be thousands of miles away (in as much as a patent can be drawn to a satellite and its ground station). IT would have been obvious that there would be a toothbrush within 1000 miles of the LeNoane apparatus. The tooth brush can be used to clean nearly anything.

Claim 17: Similarly: it would have been obvious that a ruler or calipers would be within 1000 miles of the apparatus.

Claim 18: Likewise it would have been obvious that there would have been other rulers/calipers. The measuring need not be done while the preform is in the furnace. One could shut off the heat sources, let it all cool, and then measure.

Claim 20: there is no expressed relationship between the features of claim 20 and the rest of the apparatus. IT would have been obvious that there would have been chambers with a seal there between – with in 100,000 of the LeNoane apparatus – such as in a submarine.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeNoane and Lysson 5897681 and optionally in view of Hara 4551576.

Le Noane discloses the invention as claimed, except for the seal(s) and maybe the chambers. Please refer above for as to how LeNoane has chambers or why it would have been obvious to have such. Lysson is cited for the teaching of providing a seal in a fiber making process so as to reduce gas leaks. It would have been obvious to provided seals at each location in the LeNoane apparatus so as to prevent gas leaks. This is not just for compositional reasons, but thermal reasons. So even if LeNoane does not provide special atmospheres, one would still want to prevent gas leaks, because gas leaks would also mean heat leaks. If one would go through the effort to create particular thermal conditions in one section, one would be motivated to maintain those conditions in the area (i.e. seek to prevent leaks).

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara as applied to claim1 above, and further in view of Janssen 4477274.

It would have been obvious to have sealing means at all of the Hara chambers, so as to contain all the environments. Janssen discloses that the figure 2 sealing structure is a superior sealing structure. Such a sealing is deemed to be a wiping action. It would have been obvious to use the Janssen wiping/sealing for the improved sealing ability.

Claims 1 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powers 4378985.

The forming of the continuous supply of cane is done by burner 16 of figure 1. Feature 12 does the grasping and the rotation is clear. The steps of depositing soot is done by features 32' and 44. Examiner could not find any definition for "continuous" that would exclude the Powers process. One could keep on making the preform as long as one desired. Likewise for Applicant's invention. Of course one would eventually have to stop making the Powers preform. But stopping a process would not seem to be grounds for not reading on the claims. To a potential infringer it would not likely seem likely that one could avoid infringement simply by employing Applicant's invention, but making it discontinuous once a week.

Powers does not disclose using a chamber. It would have been obvious to perform the Powers invention in a chamber, so as to protect the process from outside conditions, and to protect those nearby from the heat/gases of the process. The limitations of claims 10-12 are clearly met.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272-1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Hoffmann
Primary Examiner
Art Unit 1731

5-24-09

jmh